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DR. CHANNING'S INTRODUCTORY LECTURE.

[Concluded from page 337.]

BUT whatever be the popular estimation of medicine, there is one fact in its history which challenges for it the highest public confidence. I refer to the progress which it has made within a few years, and which it is daily making. In this fact do we not find good cause for congratulation? By new modes of investigating disease, a better assurance of the truth of facts, their more strict and philosophical analysis, a wiser and wider observation, these and kindred agencies have distinguished our professional times, and contributed truly to the progress of medicine. The numerical method, which though by some is nothing but counting, and what more is it? has done excellent service. It has done something to determine the frequency, and character of disease as far as it is applicable, and made sure what was formerly so unsettled. A man who has any due sense of character must count now-a-days. It will not do for one to say he has cured consumption very frequently, in questionless cases. He must add up his numbers. He must tell us what the precise number is.

But the numerical method, counting as it is, demands much more than simple addition. You must know what you count, and you must furnish the proof that you are right. The medical witness must not only be of unquestioned veracity. He must have knowledge, exact knowledge, or his testimony will be worthless. His reports will have equal value with the story of the three black crows, which turned out no crows at all. The illustrious Louis, and his great predecessors and contemporaries, have established the paramount importance of diagnosis, or the distinction of diseases. Nay, he and they have extended their severe methods of investigation to the agency of particular medicines or remedial methods of treating disease. Bouillaud has told us exactly the number of cases of rheumatism in which he has used bloodletting. Its quantities, its immediate and remoter effects are given, and so we have learnt when and how it may be best resorted to. A very important result of the later methods has been the reduction of the types of disease, by finding in a single type the paternity of a whole pathological family. Philosophy delights in the fewest causes for the explanation of its phenomena. Gravitation solves the problem of the motions of the universe. Medicine is daily approaching its highest philosophy; and who knows but that it may, in its progress, make itself unnecessary, by disease being resolved into a unit,

and its treatment into a single method. In another way has professional progress usefully affected the popular view of medicine. Less and less reliance is placed in the very active treatment, the heroic medicine of an earlier day. How much easier, it is asked, is disease treated—how little comparatively is done for it—won't you do more in this case?—where is calomel?—where is bleeding? So questions come. But the physician pursues his plan. Disease is shorter. Suffering is less. Recovery is more certain. In our enumeration of causes which have relieved medicine of much of its popular mystery, increased longevity, the result of a better hygiene, and the diminution of malignant diseases or of their power to shorten life, should not be forgotten. I might here mention the diminished mortality from smallpox, and the great deduction from its whole morbid power by the substitution of vaccination. And so of syphilis. What change and improvement have been made in the treatment of this disease, and how much have its destructive agencies been controlled, and its injurious results been obviated?

While the progress of the profession may, as alleged, for the time, have given power to that which opposes its interests, let it never be forgotten that the physician who deserves public confidence is now as sure of it as he ever was. If the public look for a more excellent way in a practice in which its own opinions are taken, its adhesion to such practice will be pretty sure to fall away when such opinion ceases to be cherished, or to be consulted. In other words, in the time of danger the highest authority will be demanded, and he or she who for a time has yielded to the fascinations of the new, will surely seek safety in the old, and the tried. The only power of our calling is in its true knowledge, and never in its history have the means of such knowledge been in fuller measure, or wiser operation. It is for the physician to secure the whole benefit of such power to the public, and to his profession. It is the paramount duty of the student to make such power his own.

I have thus spoken of medicine as a profession, as a life, as a profession for life. We have seen it having intimate connections with all the great interests of life. We have learnt what are its demands upon him who has devoted himself to its stern service. It demands the exertion of all his powers. It calls into exercise the whole moral, intellectual, and physical. I enumerate the last, since surgery is one of its departments, and, as the word imports, is "handwork." It asks for the highest cultivation of the senses. The eye is its servant in observing external diseases, and with these all those changes, of expression and manner which come under its notice, the whole physiognomy of disease. The ear is called upon as the instrument for detecting diseases of the chest, the respiratory sounds in all their varieties, and those communicated by the heart. Touch, taste, and smell, are all in requisition.

Let it be remembered, then, by the student, that medicine is not a dogma, nor has it its reputation in an age, or in a name. It is, in its principles, the great, the sublime generalization of an infinite number and variety of facts, the observation and collection of which, beginning with the priest-physicians of Egypt, have been continued to us through

the heroic medicine of Greece—by the votive tablets in the temples of *Æsculapius*—by the depository of all earlier learning, Arabia—by Rome—and through all the succeeding times. The principles of medicine are the inductions from every fact which its disciples have seen, studied and recorded. To us, this day, it is philosophical criticism, examining and propounding the character of all medical doctrine. It is philosophical classification, giving permanent place to, and establishing the relations of, all facts. It is scientific nomenclature, giving expression to them all. A man to have true influence in such a profession, must then have true knowledge. He must know many things, as well as the mass of men knows them. He must know some, are they not many? better than anybody else. A great man here, makes great, that to which he has given his heart, his hand, his mind. His labor becomes worthy of his whole power and being, by the transfusion into it of a noble spirit. It has then in it, emphatically, him whose it is. He is its present life, and its present honor; and in his own immortality, it becomes itself immortal.

Now in what consists preparation for such a profession? What is he to do who has this day begun its study, and who has devoted himself in that act to the highest service of man, who means to live in the present, and has in that purpose the prophecy of living in the ages to come? A German writer of wide fame has left a work on the "Vocation of the Scholar." What is the vocation, the calling, of the physician? I have answered the question, imperfectly indeed, in the views offered of the nature and demands of the profession, and shall proceed at once to speak of the preparation required of the student by its duties. I enter here upon no light work. Is it not the most important which can occupy the mind—how another mind shall be trained, or may train itself so as to bring out into full life its whole powers, and in doing so render the truest service to the race?

Says Locke, he who would obtain truth, must begin with the love of it. We profess to study, or to search for truth, in all intellectual and moral effort. Is there any pursuit which has for its object more important truth, and in which the difficulty to obtain it is greater, than medicine? Let him who has, or is about to devote himself to it, begin with a love for it. The preparation for its practice is in *time*, and in its *employment*. I do not ask here how much time it may be necessary for each one to devote to the study of medicine. I know not, and who does, certainly does he not who is making preparation for active life, how much time is demanded to make it perfect. And yet for a moment let us see what are the official arrangements in this matter. The length of time a student shall devote to this preparation varies in different countries, and in different parts of the same country. What answers very well in one State in this Union, will not answer in another. In one, if a student be a graduate in a college, two years of medical study is thought sufficient. In most, if not in all others, three years are required. But where this is the case, in some schools, if the student have attended two courses of lectures, though one course follows directly upon the other, he may be admitted long before the three years expire; and a President of a Col-

legé once said to me, in a correspondence on this very subject, that he thought if a student could pass an examination after two years or more of study, he was quite as deserving of a degree as was he who required many years for the same preparation. Then, again, the length of lecture terms. This differs. In one school it is thirteen weeks, in another seventeen. The number of teachers greatly differs, in some being six, or even eight, in others three or four. In many schools professors are non-resident, but supply two or more schools in succession. In order to do this, the same professor gives two or three lectures a-day, sometimes two in successive hours, so that he does up his teaching in five or six weeks. He then examines the candidates for the degree in his department, and of course without any knowledge of their appearance in the others, he leaves a vote for or against, just as he appears in his own. Then again in regard to hospitals. In some schools they form a part, is it not almost the most important part, of preparation?—in others they form no part of it at all. Where they do, the pupil sees the sick with his own eyes—witnesses the mode of examining cases by skilful, able men—hears the order and kind of symptoms—knows what the treatment is, and sees the result. At the clinical lectures, both in surgery and in medicine, he is taught, thoroughly taught, disease in its immediate illustration, and if he have man in him, knows what his duty is, and performs it in this highest regard, he goes home, or into practical life, with true preparation for his duties. Suppose he passes his years of study in a city where is a hospital, and diligently visits it. So much better is his preparation. So much better his claim to the public confidence and respect. See now, for you may, what is a medical education without such means of knowledge.

Medical Schools, however, do not only give authority to practice. Medical Societies do the same. These require three years of study, it may be. They prescribe a certain course of reading, the same for all, and demand a good moral character. But they demand no courses of lectures and no hospital attendance. Like the Schools they require satisfactory examinations. What a variety in requirement! How comparatively full, how positively deficient. Does not the question almost arise, if in such confusion, and so much imperfection, if true means of preparation exist at all?

Abroad much of the same thing exists. But the division of labor there, secures comparatively ample time for the separate study of each department. Surgery makes an independent study, though the principles of medicine make part, and its practice in many cases obtain. So does medicine, that being more exclusive, the physician never being acting surgeon. The division is deeper than this. The eyes, ears, toes, tendons and teeth, have special study. Midwifery in some sort exists alone. Now in such an arrangement, the time of study abroad, the apprenticeship, the hospital, lectures, apothecary's shop, &c., all go to make the student accomplished in his art. The examination is a severe one in all the colleges for degree, license or fellowship. And the chance is the public is well served. The general practitioner, so called in England, he

who combines in himself many or all departments, has recently excited much public and legislative interest in regard to preparation and qualification, and the Bill in Parliament, before referred to, has these matters specially in view.

Now here we are, all of us, general practitioners. Our two, or at most three years study, which taking out sickness, vacations, amusements, may be reduced one third or more—with lectures or without—with hospital or with none—with old books, or with new—selected by the teacher, or not selected at all, or by the student himself—these constitute the variety of means of our preparation for entering a profession distinguished by the number of its departments, its diverse interests, its grave responsibilities. The subject occupies deeper regard every day, and every year. Abroad it is a topic of intense interest. In America men are constantly directing to it the attention of the profession. I have before me now a circular calling for a Convention of Physicians who shall take the subject of professional education into deep thought and propose measures of reform. We have seen how different are the requirements of different schools for the same degree, or license to practice. What is equally worthy notice is the fact that in every school each student is to be equally taught in the same time. The amount required therefore of each, can with justice be only that which he who has the least or an average power of acquisition, may learn, and so the highest knowledge may not be presented as an object of general or individual attainment. The examinations may not meet the whole difficulty of the case, and an inferior standard of qualification come to be established. The same remark, it may be said, applies to all other education, that of the university for instance. And so it does. But the demand for something higher in a profession is found in the fact that this is to fit a man for practical, responsible life. The college study is but a step on the way to that life. The public has a right to the highest qualification for the highest duties to which any of its members may devote themselves. Especially may it demand that the preparation shall be ample, if not perfect—that there shall be fitting knowledge acquired, if not all knowledge.

What shall be studied? I received a letter, a few days ago, asking what course of previous reading this school required for attendance on its lectures, and what course it prescribed during the lecture session. I was glad of the request, for it allows me to say something of a very important subject. What shall the student read? "Action, action, action," said Demosthenes—and "Coke, Coke, Coke," might have said one of the most distinguished jurists in English history, Lord Eldon, for in Action was the secret of true eloquence with the Greek orator, and Coke's Commentaries on Lord Littleton was English law to Lord Chancellor Eldon. But again, what shall the medical student read? Blackmore, afterwards Sir Richard of that name, and a distinguished physician, and a very voluminous poet, being about to begin the study of physic, went to Sydenham one day, and having told him his purpose, asked him what book he had best read. "Don Quixotte," answered the English Hippocrates. I do not stop here to ask what was there in the case of the applicant

which led to the singular advice of Sydenham. I will at once point out such a method of study as observation, and such works as I have consulted, seem to me most strongly to recommend. I shall speak of *Time*, and of its *Employment*.

Let then the first 18 months be devoted to anatomy, human and comparative, chemistry, botany, mineralogy and geology. Let the student attend lectures on the above branches, and these only. Let him visit a hospital, but devote his attention mainly to the observation of external diseases, surgical for instance, and diseases of the skin. While attending lectures let him dissect, and if possible become an assistant in the chemical laboratory. In these studies, especially in anatomy, lie the foundation of medicine. No physician can safely want the knowledge of them. No one can be an accomplished, thoroughly educated physician without them. They have been the studies of the most eminent physicians of all times. Chemistry has had its birth and growth in our profession. It has now its place among the exact sciences, and has its methods from the most profound and severe of them all. In its investigations of the organic, and the inorganic, it occupies the widest space in the field of science. It is full of interest. It has been loved with a devotion which no other branch of medicine has reached. No one can be a true scholar in this profession without a profound knowledge of its principles, and of their detailed practical applications. The other studies enumerated possess great interest. What of disease was named addresses the mind through the senses. These last acquire their best cultivation in this way, and also by those portions of natural history which were stated to be indispensable to the medical scholar, for themselves, and for the important aid which they bring to the studies and practice, of the whole profession.

I have omitted a study which may well come in, in the first 18 months, the History of Medicine. A student should early know something of the progress of that pursuit to which he has devoted his life. He learns how so much of time, so many ages, have been filled by his calling. He begins with his mind as much wanting in knowledge of the matter, as was the time in which it has been brought to light. He begins with the earliest, the fabulous periods of medicine. He travels through its ages, noting who have marked them, and by what they have distinguished them. He knows little or nothing of the doctrines, or of the practice which pass before him, for it is not literary history he is studying. And for his purpose he does not want such knowledge. He is filling his mind with chronological epochs, with distinguished names, and with individual mind and character. He is a witness of struggle, of defeat, of victory. Insensibly his own mind becomes awake and alive to the fact that the profession to which he has devoted his life is worthy the devotion. He insensibly takes his own place, or feels that he has one to take, in the long and venerable history of a noble art—of an art which has occupied great minds, undergone mighty revolutions, but which in every day of its being has had for its purpose true good to the race. Let him then study Le Clerc's History of Medicine, and Clifton's Hippocrates, the Life; Millar's Disquisitions in Medical History, Cabanis's Revolutions in Medi-

cine, Friend's History of Medicine, and, latest and best, Kurt Sprengel's great work on the same, in nine volumes. I name those which are before me, and which will reward study, and make pleasant relaxations from severer studies.

The two following years will embrace the study in all branches of medicine. Two full courses of lectures, with dissections, daily visits to a large hospital, and diligent study of medicine in its varied literature. These two years form a most important time for the student. He must lay his back to the work. Everything else is to be subordinate, and used only as means to help him in his proper toil. It must be felt to be toil. He must read a great deal. He must forget a great deal to know much. A volume may give him but a single thought or fact for memory, but that fact will be a jewel. It has cost time, but it will last forever. Said Johnson to a young man who was vaunting himself on his wide reading and knowledge, "I have forgotten more than you ever knew." I once consulted a very aged physician, of much reputation in our community, on the treatment of an advanced case of fever. He went to his bookshelves, and from a high one took a volume which was Brocklesby on Fever. He turned rapidly its leaves, and in a minute or two put his finger on a particular paragraph, and bid me read it. I did so. It stated that in some moments of advanced fever an emetic was useful. Said my friend, "I have not opened that book before for forty years." Probably that one paragraph, which contained what he judged to be very important knowledge, was the only one which remained in his long memory. The student then must put it to his account to read a great deal. Let him from the beginning of his studies keep a Common Place Book, and into this let him make daily entries from books, and of such thoughts as specially occupy him in study. A vast help is this in the study of a science so full of fact and theory as ours. I may add, I hardly recollect a distinguished man in any field of literature or science, who has not faithfully availed himself of this means of acquiring and retaining at command, knowledge. Examinations with fellow students are always useful. I remember a public medical teacher of much eminence, in recommending such exercises, said, that a student could hardly be said to know what he had not in words, in language, communicated to another.

Three years and a half are now disposed of. Let the student now present himself for a degree. I think with this preparation, he may do so with some confidence. Having obtained his degree, let him go to Europe for a year, and study medicine in the vast practical school which is established there. I would advise him to give four months of the time to a residence in a Lying-in Hospital, to which is attached wards for the diseases of women and of children. Dublin offers a most excellent field for such studies. Let the rest of the time be filled with such studies as are most favorably pursued abroad. Branches which were first studied at home, may be practically reviewed there, especially the collateral, while for the immediate, most ample opportunities exist. Permit me here to offer a simple caution, and which has application to the whole time of study. I think it is needed in the present day. Let the student be

careful to avoid exclusive regard to particular diseases. Within a few years special attention has been directed to a few particular subjects. Laennec, Louis, and others, have given an interest, which may become paramount, to particular diseases. Fever and phthisis are among these. Great interest has come to be felt in the diagnosis of these affections, and it has reached great perfection. Their anatomical characters, as observed after death, have been so thoroughly studied, and their laws so accurately established, that perhaps little more is to be learned concerning them. But they form but a very small part of pathology, and to be too exclusively devoted to them will interfere with the acquisition of a vast amount of indispensable pathological knowledge. A physician should never be a devotee to specialities. He must not be a slave to the rare, or to the few, however important. His pathway lies through disturbed functions, oftener, much oftener, than by the side, or through the regions, of grave lesions. He must be very apt to detect the former, and to relieve them, too, or he will not have a wide name, or a very full practice. Medicine must not be to him a "wonderful magazine." It may be, it will be, a book in which he may read "strange matters;" but he will find in it everywhere problems of the every-day, and the true, in which thousands are more or less deeply interested, and of which they will look to him for the practical solution. An exception to the rule suggested here, may be found in some strong predilection for some particular branch of the profession. Especially may such arise when the medical student is at work in Europe. Suppose now he have strong preference for some particular investigations, or to prepare himself for some particular branch of his profession, whether in medicine or surgery. Let him give time to such. He may do this without important sacrifice of other matters, and come home in his general preparation for professional duties, with a special knowledge which may stand him in excellent stead, and fit him for important special services to others.

And now let me ask what will be the product to the student of so much time, and of such faithful employment of it. I say *experience*. By this word I mean here that intellectual perception, and that appropriation of what others have seen, thought, and recorded, as will make them his own, just as if he had witnessed them himself. His mind has been daily in sympathy with the minds of others. He has not only imbibed their spirit, but he has got their knowledge. They have been to him eyes, and he has through them had perfect vision. Barthez says somewhere, "that a man of strong judgment, and competent sagacity, may contribute much more to the real progress of a science of facts than he who is principally occupied with experiments." So our student in the wise use of his own mind upon what others present to it, may come to make a better use of knowledge than its teachers. The course of preparatory study, however, above indicated, will bring the student into direct contact with facts, with disease in its present living example, and so make him its witness. It will do this for him, when his mind is prepared for observation, and for reflection upon that which is presented to it, and so daily enable him to institute comparisons between that which he reads and

sees, that authoritative inquest which is to result to him in truth, namely in all that truth to which he is at the time able to reach.

I may be asked if my subject does not demand some allusion to those moral qualities, and personal habits, which take so wide a part in the progress of a professional man, and if I have no detail of study to present? I say no. Vogel, a German writer who has written at much length on the education of the medical student, has devoted a long chapter to the first topic, and Young, in his *Medical Literature*, both before me, does the same for the latter. Young takes the future physician at 2 years of age, and prescribes specific studies for him till 18, and then teaches how in the three succeeding years he may be made into a physician, a surgeon, or a what not. But I have here no directions to offer. If I have succeeded in my attempt to show somewhat concerning the true nature of medicine, and in what consists preparation for it—if I have said that which will make the student faithful in his studies, have spoken for them, so to say, all his time—if I have done that which will bring into living action his intellectual and moral nature, and showed him what it is to be a man in his noble calling—if I have in any true sense done these things in the short hour we have now passed together, I shall not fear but there will come out of it a true revelation of what a man's conduct should be to secure for him all needed success. It may not make him a very rich man, but it will prevent his being a very poor one. It may make him a wise and a good man, and with such result, is it not the truest success? let him be content.

AXILLARY ANEURISM CURED BY COMPRESSION.

A Case of Aneurism cured by Pressure on its distal side. Presented to the Vermont Medical Society at their Session, at Castleton, June, 1845, by MIDDLETON GOLDSMITH, M.D., Professor of Surgery in the Castleton Medical College, and reported by J. A. ALLEN, M.D., Corresponding Secretary, Middlebury, Vt.

[Communicated for the Boston Medical and Surgical Journal.]

MR. ——— BELLOWS, the subject of this case, is a native of Vermont, healthy, but not robust, and 20 years of age. In the month of February last, while engaged in the marble quarry at West Rutland, he received some fragments of marble, which were propelled by an accidental blast, into the anterior and lateral portions of his right breast, and into the axilla of this side. These wounds were not attended by hæmorrhage, and inflammation was developed about the small fragments of marble which his attendant physician, on account of their minuteness, had been unable to remove. For the first week or two, the case apparently progressed favorably, but after the lapse of three weeks, the patient observed a small tumor in the axilla, which gradually increased till he applied to Dr. Goldsmith, about the middle of April.

"At this time, I found," said Dr. G., "an aneurism of the axillary artery, and apparently embracing it very nearly the whole length of the

vessel from the termination of the subclavian to the beginning of the brachial. The tumor was somewhat irregular in shape, and was observable by its lower extremity just below the tendon of the pectoralis major. The tumor pulsated plainly when grasped in any of its diameters, and ceased its pulsations when the subclavian was compressed as it passed over the first rib. And it gave the aneurismal thrill. The circulation was free but not strong in the brachial artery, and the pulse could be felt at the wrist."

In the opinion of Dr. G., the aneurism was of the false variety, like those which sometimes occur at the bend of the elbow from venesection.

"As the situation of the tumor was such," Dr. G. remarked, "that I could apply a compress upon the artery, at a point between which and the tumor there was no branch given off, I determined to try the effect of permanent compression. For this purpose, I used the common screw tourniquet, with three pads, to make the pressure on certain points, leaving the rest of the arm uncompressed. I put him upon the use of antimony and digitalis, and with these drugs I was able most of the time to keep his pulse reduced from the natural standard, 74, to between 45 and 55. I kept up the compression during the term of seven weeks; and for four, kept him under the influence of antimony and digitalis."

The pulsation in the tumor grew more feeble from the first application, till it disappeared on the 15th day. The tumor diminished in size until it was about as large as a pigeon's egg, when he was discharged. This was about the size of the tumor when the patient was presented to the Society. The tumor felt dense and membranous, and the circulation is restored, though feeble, in the brachial artery. This probably is through the medium of the recurrent branches at the elbow.

Preceding, during, and after the medical and surgical treatment, the patient, besides the attendance of Dr. Goldsmith, was seen and examined repeatedly by Dr. Sheldon, of West Rutland; Drs. Porters, of Rutland; Dr. Northrop, of Castleton; and Professors Perkins, Parkman and Carr, of the Medical College.

Remarks.—The successful event in this instance ought to be regarded as one of the most brilliant achievements of modern surgery. A proper estimate of its importance can be made by a consideration of the amount of pain and anxiety which was saved to the patient, and the degree of risk to which his life would have been exposed by the ordinary method of tying the subclavian artery. The former can be realized only by those who have suffered or are about to suffer from similar and hazardous operations. The sum of danger avoided can be ascertained with a tolerable degree of certainty by reference to Dr. Norris's table, showing the mortality following the operation of tying the subclavian artery, contained in the July No. of the American Journal of Medical Sciences. The table contains a report of sixty-nine cases in which the subclavian artery was the seat of the operation by the Hunterian method; and "*of these sixty-nine cases, thirty-six recovered and thirty-three died,*" nearly one half thus proving fatal. If Dr. Goldsmith had immediately proceeded to the operation of tying the subclavian, and thereby subjected the young man

to the unavoidable torture incident to such an occasion, and, at the same time, subjected him to an equal risk of losing with saving his life, the profession and the public would have been satisfied; and, if the event had proved favorable, the act would have been lauded as a splendid affair. As it is, the case has hardly excited any notice or attention. It has been very justly remarked by a distinguished European surgeon, that a surgeon, on commencing an operation, ought to feel chagrined because he was compelled to do like a savage what he had not knowledge sufficient to accomplish like a skilful man.

In the case under consideration the cure was very judiciously attempted by the combination of medication and pressure. *By making the pressure on the distal side of the tumor, it is believed, Dr. G. is unprecedented, especially in cases of axillary aneurism.*

M. Vernet attempted this method in a case of inguinal aneurism; but the pulsations were so increased, and the inconvenience so great, that it had to be abandoned. "This method," remarks Velpeau, "has been generally blamed, even by those who have adopted the idea of Brasdor on the subject of ligature; but yet it does not seem worthy of entire rejection. If, for example, it were necessary to treat an aneurism, above which it would be impossible, or at least highly dangerous, to apply compression or ligature; if, on the other hand, no important branch were furnished between the cardiac extremity and the free part of the tumor, it is by no means certain that, by compressing the artery on this latter point, you will not succeed in suspending the circulation in the aneurism, in occasioning the formation of a solid coagulum in its cavity, and, in short, of producing an obliteration of the arterial canal, and a perfect cure of the disease."

That which this eminent and learned French surgeon conceived to be barely possible, has been shown, in the present case, to be not only possible, but safe, easy and practicable. And, in fact, this instance, taken in connection with four or five other cases in which cures have recently been accomplished by compression made on the artery between the tumor and the heart, intimate in the strongest manner that the ancient method of cure by pressure has too soon been proscribed. And when it is considered that these cures by compression have occurred in succession in different hospitals, and under the care of different surgeons, we have reason to believe that the early plan of cure by pressure will be revived, improved, and probably, by an adoption, to some extent, of the method of Valsalva, supersede, in many cases, the modes of Anel, Hunter or Brasdor.

EXTRACTION OF A BROKEN NEEDLE FROM THE HAND.

By Estes Howe, M.D., Cambridge, Mass.

[Communicated for the Boston Medical and Surgical Journal.]

THERE are few things more embarrassing, in ordinary practice, than being called upon for advice, in a case where a needle has been thrust

into the flesh, and is supposed to be still present. Very often the evidence of its presence is so equivocal, that one feels very doubtful as to the expediency of an exploration with the scalpel, even at the request of the patient, and still more so as to advising or urging the use of the knife. Yet where a needle is really present, in the hand or foot, or near an articulation, the importance of immediate extraction will not be denied. And where there is no reasonable doubt of the presence of a needle, its exact position, and the direction of its axis, are extremely difficult to determine. We are not at liberty to explore, by incisions in every direction, as we might on the subject, but must content ourselves, at most, with a moderate crucial incision; and it is too often the case that after a search for some minutes, unsuccessfully, our conviction of the existence of the object of our search, "oozes out at the end of our fingers," like Bob Acre's courage—the patient "is sure it's not there," or "it feels better and may work out"—while our backs ache, our eyes are dim with looking, our fingers are tired of *poking*, and we give it up, in a woful uncertainty as to the case, but quite sure that the patient has an ugly wound to no purpose. To be assured, therefore, of the presence of a needle, and within very small limits, of its exact seat, and the direction of its axis, is no small thing in such cases. Feeling confidence in our diagnosis, we may boldly continue our explorations to complete success—being always able to assure our patient, beyond a doubt, that we shall ultimately succeed.

CASE.—Mrs. F., while washing, thrust into the palmar surface of the right hand, about an inch and a half anterior to the pisiform bone, something sharp—probably a needle. Upon examination of the dress she was washing, the half of a needle was found, and the question was, whether the other half was, or was not, buried in the flesh. On examining the place, a small puncture was perceived, from which, I was told, no blood had issued, when I saw the patient an hour after the accident. I probed the puncture with the blunt end of a needle, pretty deeply, but could feel nothing, and upon pressure in various directions could not arrive at any unequivocal evidence of the presence of the broken portion of needle. The patient was very reluctant to submit to the scalpel, and I did not feel sufficiently sure to urge her to submit to it, while I was equally unwilling to have her run the risk of losing the usefulness of her right hand (upon which she and four children depended for bread), by suffering the needle to remain, if it were really there. At this moment, the expedient of Mr. Alfred Smee, described in an article in the "*Medical Times*," of London, occurred to me, and I resorted to it with perfect satisfaction. His plan is to ascertain the existence and position of the needle, by rendering it a magnet. This may very readily be done, by subjecting it for a certain length of time to the action of a moderately powerful magnet. I procured, from a friend, a pretty powerful magnet—a steel bar about a foot long and half inch square—well charged. This I bound upon the arm, placing one pole directly over the seat of the injury. Two hours after, I removed it, and upon bringing a small magnetic needle, about an inch and a half long, into the immediate vicinity of the injured

part, had the great gratification of perceiving that it was strongly acted upon, being attracted or repelled as I presented one or the other pole. By a few experiments I was able to satisfy myself very nearly of the position of one pole of the magnet; but the exact direction of the axis I was not able to determine without an experiment that I could not well perform with a needle suspended in the ordinary way, upon a point. I therefore magnetized a common sewing needle, and suspended it by a fine silk thread. Upon bringing the affected part very near it, it was obviously influenced, and upon repeated trials uniformly arranged itself in a particular direction, of course parallel to the axis of the imbedded needle. I had now established the presence of the needle beyond all doubt, and its precise position and direction. A very moderate crucial incision enabled me to reach and extract it, though not without some trouble from the extreme timidity, and intolerance of pain, in the patient. I am sure that I could not have induced her to submit to the operation, unless I had had perfect confidence myself in my diagnosis. Perhaps it may be thought that the magnetic needle would have been attracted by the imbedded needle before it was magnetized, but I ascertained satisfactorily, by experiment, that this was not the case.

It is true, so large a magnet is not always at hand, but a smaller one would have been effectual, and any person possessing an electro-magnetic apparatus might make one of any size. I have been so much pleased with the result in this case, that I shall never use the knife, where I have any doubts, until I have cleared them up in the manner described.

ON THE TREATMENT OF HYDROCELE BY RETAINED INJECTIONS OF IODINE, AND BY THE SETON.

[Communicated for the Boston Medical and Surgical Journal.

THE original plan of injecting stimulating solutions into the cavity of the tunica vaginalis superseded all other methods which anticipated a radical cure of hydrocele. This practice, which it is well known consists in a temporary retention of the fluid until the irritation caused by it ends in adhesive inflammation, and then in withdrawing it, has lately been so far modified that a solution of iodine in small quantities has been substituted for port wine and other astringents, and as an essential feature, is allowed to be *retained* in the scrotal cavity until removed by absorption. If the statistics which have accumulated in the European journals during a few years past are to be relied upon, iodine must be regarded as possessing specific powers over hydrocele. It is, however, difficult to comprehend that there is no bias or exaggeration in the statements published by the advocates of this exclusive practice, yet among them are many distinguished surgeons of the day whose word is beyond all question.

The practice, or discovery as it is claimed to be, of treating hydrocele by retained ioduretted injections, was first adopted by James Ranald Martin, a medical gentleman in the service of the East India Company, in Bengal, in 1832. Hydrocele is a disease of great frequency in the East

Indies, but we are told that the native inhabitants were reluctant to submit to the restraints imposed by the ordinary methods of treatment, and that operations for radical cure were seldom performed. But a glance at the following table shows the growing confidence with which the native inhabitants regarded the new treatment, and the extraordinary results that attended it. During eight years succeeding the discovery, the numbers treated at the Calcutta Native Hospital were 2393, as will appear by the following table.

In the year	1832	-	-	-	-	32
"	1833	-	-	-	-	49
"	1834	-	-	-	-	86
"	1835	-	-	-	-	121
"	1836	-	-	-	-	332
"	1837	-	-	-	-	528
"	1838	-	-	-	-	585
"	1839	-	-	-	-	660
Total						2393 cases.

Of this aggregate, 1265 were Hindoos,
 " " 1076 " Mahomedans,
 " " 52 " Christians.

In the latter years a large proportion of the subjects were from Orissa, where hydrocele is endemic. Incredible as the results seem, the physicians of the Hospital report over their signatures that the failures from first to last were rather less than one per cent., and that no complication has interfered with the operation, which has superseded all others in India. It would be interesting to bring up the foregoing table to the present year, but the details are inaccessible to the writer. Perhaps the Editor will be kind enough to supply them.

Results so eminently successful naturally suggest an inquiry into the details by which they are accomplished. The practice of Mr. Martin is very simple. When the serum, which often exceeds 100 ounces, has been evacuated, a dram and a half to five drams*, according to the size of the tumor, of a solution of tincture of iodine of uniform strength, viz., one part of tincture and three parts of water, is injected into and is almost always left within the sac. The scrotum is then grasped by the hand in such manner that the fluid shall be carried over every part of the internal surfaces. The subsequent treatment consists simply in applying cooling washes and in giving a purgative. No confinement is required; on the contrary, the native inhabitants usually walk home immediately after the operation and return in a day or two. Some patients go to their occupations the next day, and most of them on the third and fourth days. It must be confessed that a like freedom would with us be followed by deplorable consequences, by carrying the inflammatory action

* Magendie's Formula.

and febrile disturbance by a great deal too far. Bransby Cooper relates the unfortunate case of a gentleman who walked home after the operation. The exemption of the natives of India from unfavorable terminations in the subsequent treatment seems due to peculiarities of climate and temperament.

The peculiar value of the iodine process is authenticated by Dr. Good-eve, another Indian practitioner, who employed retained injections in 272 cases with but two failures, or much less than one per cent. As a matter of course, a practice so successful spread rapidly into other countries, and a mass of corroborating testimony has been accumulated. Mr. Bransby Cooper asserts that since he has adopted it he has never failed. M. Vel-peau employed the remedy in 300 cases "without accident," and other French surgeons praise it. Dr. Oppenheim corroborates its efficacy, having used it successfully in a great number of instances. So that on the whole, abating many grains of allowance for exaggerations inseparable from the enthusiasm of almost absolute success, iodine must be regarded as a remedy of specific virtue in the radical treatment of hydrocele. It seldom causes much pain even when strong, and its action appears to be similar to that of nitrate of silver; it stimulates, then soothes irritation and pain, at the same time it promotes the required inflammatory adhesions.

I have no personal knowledge of this procedure, having commenced with the seton and having been satisfied with results. The ease and rapidity with which this method can be executed, and the certainty of procuring the necessary degree of adhesive inflammation, are paramount advantages which may be claimed for this process. With a long straight needle that will freely pass a small canula, the seton can be inserted in a few seconds. The trocar being introduced as in the method for injection, and the stilet withdrawn, the needle is immediately carried through the canula to the upper part of the tumor, and pushed through the integuments upon the point of the finger, taking care to exclude the testicle and spermatic vessels, which may be securely avoided before the contents of the sac are evacuated. I have frequently accomplished the operation by simply puncturing the tumor at its bottom with a lancet, and instantly passing the ligature through the aperture with a common curved needle. This is not a way, however, to be recommended, for in the hurry to insert the seton before the serum escapes, there is a risk of puncturing the solid contents of the sac; but when the needle is guided by the tube there can be no fear of wounding vital parts. The seton which I have used is one composed of many distinct threads, and the time of its retention has varied from one hour to two weeks. It may be withdrawn when the tumor has regained its former dimensions and when the inflammation is of a deep rosy tint, which is usually the case in one, two, or three days. In a considerable number of instances, I have had but one failure, and but one case of suppuration, in which the ligature was removed in an hour after its insertion because of the excessive pain which it occasioned.

Greenfield, Ms., Nov. 15, 1845.

JAMES DEANE.

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON, DECEMBER 3, 1845.

Diseases in Illinois.—A correspondent—a Professor in one of the Western Medical Schools—under date of Galena, Ill., Nov. 5, 1845, writes as follows respecting some of the diseases in the places which he has lately visited. It will be perceived he gives important information respecting the immunity from pulmonary consumption said to be enjoyed in the State of Illinois. We hope to be favored with other communications from our friend during the winter.

"I left the East some six weeks since for the West, and have wandered thus far, having just returned from Dubuque (Iowa) and Mineral Point (Wisconsin). I have travelled hither to see the country, and collect such information as might concern my profession. It has been extremely sickly throughout all the towns in the West the summer past, and the white faces and emaciated frames which greet the eye on every side show the work of malaria over this truly beautiful land. Fevers of various type have prevailed the season past. Intermittents, remittents, and what is termed congestive fever, have been the principal. Last spring, in various sections of Illinois, the epidemic erysipelas prevailed to an alarming degree, and was attended with its usual concomitant, puerperal peritonitis. I made extensive inquiry respecting the prevalence of phthisis in Illinois, and find, what might have been, *a priori*, supposed, that where malarious fevers are prevalent, phthisis is comparatively rare. In the mineral region, especially about Mineral Point, Wisconsin, where it is broken and hilly, and the streams run over rocky and pebbly beds, and are fed by springs, fevers are rare, but here I am informed by the physicians that consumption is quite prevalent, nearly or quite as much so as at the East, compared with other diseases. At Dubuque, twenty miles north of Galena, in Iowa, on the Mississippi, fevers prevail to a great extent, while phthisis is rare. At Galena, along Fever River, the same state of things prevails, but the surrounding country is hilly, with high bluffs of rock along the water courses. Phthisis is here quite prevalent. In selecting a spot for the consumptive invalid, all that is requisite is to settle on some of the level and fertile prairies (and a great part of the State is of this description), or on some of the river bottoms, and the chance is greatly in favor that the life of such invalid may be greatly prolonged; or where a strong predisposition exists, hereditary or otherwise, consumption may never be developed. These are facts which strike every one who has resided any length of time in the State, and have given rise to the remark that consumption does not exist in the State. This is saying too much. Individuals must, from the necessity of the case, emigrate West, who are strongly predisposed to phthisis, or who actually labor under the incipient form of it, and such are greatly in danger of dying, let them go where they will. The bland airs of the South, or the prairie lands of the West, will often prove a fallacious hope to the consumptive invalid. Again I would say to the consumptive invalid from the East, seek the rich alluvial

bottoms of Illinois, where malarious fever is annually prevalent, and the chance of life being prolonged is in your favor.

"Bilious pneumonia, or winter fever, prevails in cold weather in many parts of the West, particularly on the high, uneven mineral region. With regard to the diseases peculiar to the mining population of this region, lead colic prevails to some extent among those employed in smelting the lead, but the miners who dig the ore are as healthy as any set of men. The water is not impregnated with lead or copper, although on some specimens of lead the carbonate is found encrusted on the surface.

"In conversing with a great many physicians of Illinois, on the diseases of children, they uniformly speak of the absence of terminous diseases."

Successful Ligature of both Carotid Arteries in one Person.—We are glad to learn that this operation has been happily performed by Dr. J. Mason Warren, in this city. The patient was a young man, about 22, who had been afflicted from birth with a *nævus* on the breast, neck, and face. A remarkable deformity of the skin, and even an increased development of the bones of the head, had been produced by this disease. But what had most troubled and distressed the patient and his friends was, the recent development of a fungus-like tumor on the inside of the lower lip, base of the mouth and of the tongue. This was increasing, had become ulcerated, and presented an alarming aspect.

As it was impossible to extirpate the diseased mass, it was concluded, in consultation with Dr. John C. Warren, successively to tie the two carotid arteries, which supplied this diseased growth. The operation was accordingly executed first on the left side seven weeks since, and a sensible diminution of the disease having occurred, the right carotid was tied five weeks after the left. The patient did not suffer any extraordinary symptoms when the second great artery was tied, and convalesced so rapidly that in ten days he was able to walk the streets. A still greater diminution of the morbid appearances has occurred.

This is the first time in which the operation of tying both carotids in one individual has been done in this place.

Medical Lectures in Maine.—As usual, the annual circular of this school is abroad seasonably. The term will not commence till the 16th of February, which affords those who are now in attendance at other institutions, to have another series before the snow leaves. We have so frequently set forth the good reputation of the Maine Medical School, and referred to its library, cabinet, &c., that it is quite needless to do the same at present. If a re-organization of the working part of the machinery were effected, by the election of a resident faculty, we think the Trustees would be surprised with the success of the operation. As matters now stand, the medical department of Bowdoin College does not accomplish half the good it might. A board of resident professors would have a local reputation which would very naturally gather in students, who would study their profession entirely at Brunswick, for the sake of the opportunities of witnessing the practice of eminent instructors, and would manifest a partiality for a place, a school and society where they

were pleasantly and profitably situated. We have urged these considerations on former occasions, and our doing so has called up hostile feelings where there was least occasion for them. One gentleman ordered his subscription to the Journal closed, instantler, probably from a conviction that we had no right to make suggestions in regard to the condition of science or literature among the people of another State. A desire to have the Maine school take the high ground which it might and should have, with such capabilities and acknowledged facilities as it can always command, as the only medical institution of the State, and withal a favorite beneficiary in by-gone days of the legislature, has alone prompted these and similar sentiments.

Boylston Medical Society.—The following gentlemen have been elected officers for the ensuing year.

Henry J. Bigelow, M.D., *President*; Samuel Kneeland, M.D., *First Vice President*; Mr. James W. Stone, *Second Vice President*; Mr. Robert Dixon, *Secretary*.

By the liberality of the late Ward Nicholas Boylston, Esq., a fund was established in the year 1823, the interest of which is annually bestowed in prizes on the authors of the best dissertations presented by members of the Society. Exercises for the promotion of medical and surgical science by means of debates, lectures, &c., occur weekly. Advantages are thus offered to the medical man to perfect himself in the art of *delivering* his ideas, which is as important as the *acquisition* of knowledge. No similar institution exists in this city, and, in the language of Dr. Warren, "there are but few other opportunities of acquiring a facility in extemporaneous address, without participating in political brawls."

The Petrified Woman.—There is a special paragraph in the last No. of the British American Journal of Medical and Physical Science, published at Montreal, intended to show that we have all been imposed upon here in the States, by the *petrified woman*, so called. It will be recollected that all we said of the body being petrified, was simply the assertion of the exhibitor. Being screwed up tightly, beyond the reach of fingers, we could only look at the mass through panes of glass. The Montreal Journal says—"We have a specimen of it, removed by a penknife, and from the fleshy part of the fore-arm, and a beautiful specimen of *adipocere* it is." Again, the editor remarks, "Our object in noticing this, is to expose a humbug, and to defeat the cupidity of parties deprived of the finer feelings of humanity." Wherever the stone woman appears, after this, it is to be hoped that the scientific part of the public may be more fortunate than they have been in Boston, by being permitted to touch and take specimens. In that way the exhibition would subserve the interest of science as well as that of the owners.

The Young Stethoscopist.—We understand that Dr. Bowditch, of this city, has in press a new work, under the above title, on the Physical Signs of Diseases of the Chest. It is intended as an aid to students, and to physicians resident in the country. About the middle of January it will, probably, be ready for the trade. There are in it between twenty and

thirty engraved illustrations. The well-known reputation of the author in stethoscopic explorations is all that is necessary to have his treatise well received by the medical public.

Medical Society of Quebec.—On the 25th of Nov. a meeting of the Medical Society was held, for the purpose of receiving the report of its delegates to the Montreal Convention, Aug. 21st. Dr. Morrin presided, Dr. Badgley being Secretary. The mission to Montreal was unsuccessful, and the medical gentlemen of Quebec, by a series of resolutions, express their regret that matters eventuated thus. In a word, the Quebec delegation was not recognized as representing any medical district.

Blue Ink. By M. MORNUNG.—Mix four parts of perchloride of iron, in solution with 750 parts of water, then add four parts of cyanide of potassium dissolved in a little water; collect the precipitate formed, wash it with several additions of water, allow it to drain until it weighs about 200 parts; add to this one part of oxalic acid, and promote the solution of the cyanide by shaking the bottle containing the mixture.

The addition of gum and sugar is useless, and even appears to exercise a prejudicial effect on the beauty of the ink. It may be kept without any addition for a long time.—*Journal de Chimie Médicale.*

Medical Miscellany.—M. Barmel has conceived the idea of making a medal from the iron which might be collected from the blood of a subject. A wife of a member of the Ecole de Medicine, of Paris, says the Courier, wears a ring made of the iron which was extracted from blood taken from her husband during the course of a severe disease.—Smallpox appears to be exceedingly rife at Baltimore, Philadelphia, and many places West. There were eight deaths by it in Philadelphia week before last. Various towns in New England are also more or less afflicted with it.—A gentleman is represented to have died last week, a victim to an inveterate habit of smoking. He is said to have smoked thirty cigars in a day. The mortality of all Germany is thought to be very much increased, annually, by too much devotion to the tobacco pipe.—The state of health in the interior of Ohio is represented by a correspondent to be good this fall, and the weather through October was unusually mild and pleasant.—In a proof sheet of the Journal of Natural History, we notice an article by James Deane, M.D., on the fossil foot marks at Turner's Falls, Mass.

MARRIED.—At West Topsham, Vt., Dr. Levi Burton to Miss S. Jenniss.—At Washington, D. C., Dr. R. Finley Hunt to Mrs. C. A. Crandall.—At Yorkville, S. C., Dr. J. F. Lindsay to Miss R. W. G. Frost.

DIED.—At Snow Hill, Maryland, Dr. Wm. Riley, killed by being thrown from his sulkey.

Number of deaths in Boston, for the week ending Nov. 29, 30.—Males 21, females 18. Stillborn, 7. Of consumption, 8—typhus fever, 3—dropsy on the brain, 6—inflammation of the brain, 2—lung fever, 1—smallpox, 4—hooping cough, 2—throat distemper, 1—infantile, 3—inflammation of the bowels, 1—old age, 1—scrofula, 1—inflammation of the stomach, 1—palsy, 1—croup, 1—rheumatic fever, 1—cancer, 1—intemperance, 1—drowned, 1.

Under 5 years, 15—between 5 and 20 years, 4—between 20 and 60 years, 18—over 60 years, 3.

The Practice of Re-vaccination.—Every medical man must be aware that the propriety or necessity of this practice has excited much attention of late, although its investigation has been unaccountably neglected by the profession in this country. To us there seems no one valid objection to urge against it. It has been said, indeed, that such adoption would unsettle the public mind in its faith in vaccination. Nor need this be regretted. The most fatal condition of the public mind, and from which much evil has already sprung, is *apathy*. Let public attention be fairly aroused, the merits of vaccination will then undergo renewed discussion, and its more general adoption will be the result. It is especially to Prussia and Wurtemberg that we are indebted for the experiment of re-vaccination upon a large scale. In the former country, of 216,289 re-vaccinations during 1833-7, there were 84,516 successful: and of 44,000 in the latter country, 20,000 succeeded. Frequently, too, cases which failed on a first trial succeeded on a subsequent one. The precise proportion of successful cases has varied from 31 to 45 or 46 per cent.—the period between the ages of 10 and 30 being found that most certain of success. Of course, no one infers that the success of re-vaccination implies a liability to smallpox in an equal number of cases. The operation, in fact, in the hands of Heim, proved successful also in 32 per cent. of persons who had already had the smallpox—a proportion infinitely greater than that in which smallpox occurs a second time. But, although we are unable to state the exact proportion of the vaccinated persons, in whom re-vaccination succeeded at the rate of 34 per cent., who would otherwise have acquired smallpox on exposure, yet experience has shown that this might have been considerable; whereas, among the many thousands who have undergone re-vaccination in Prussia and Wurtemberg, an example of the occurrence of smallpox has only here and there been observed. Moreover, in the case of an epidemic breaking out, it has been found, in various localities, that immediate re-vaccination has *arrested its course*—individuals in whom the operation proved successful and those in whom it failed equally resisting the disease.—*Med. Chir. Rev. Oct.*

Excessive Crowding.—Mr. Farr has adduced a small portion of the East of London, containing a population in the ratio of 243,000 inhabitants to a square mile, as the greatest density attained in the heart of English cities; but, according to Dr. Duncan, there is actually a district in Liverpool “containing about 12,000 inhabitants crowded together on a surface of 105,000 square yards, which gives a ratio of 460,000 inhabitants to the geographical square mile; and if we confine the calculation to a smaller portion of this district, but still comprising a population of 8,000 (on 49,000 square yards), we shall find the inhabitants packed together in the proportion of 657,963 to the square mile.” In Nottingham, which is hemmed in by fields belonging to the freemen, it is stated by Mr. Hawksley that 4,200 people dwell in a square of 220 yards on the side (46,400 square yards), and that the average area to each inhabitant throughout the town, including the streets, is about 18 square yards.—*Ibid.*

Just published in London, a work on Scarlatina and its successful Treatment by a new Method. By I. B. Brown, M.R.C.S.